

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
QUIE0108 OPERACIONES BÁSICAS EN PLANTA QUÍMICA

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Professional Certificate Level 2 in  
QUIE0108 BASIC OPERATIONS IN A CHEMICAL PLANT  
(This translation has no legal status)

## 3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to carry out all the basic and control operations for different chemical processes, controlling the operation, start-up and shutdown of the machines, equipment and installations that are involved in them, maintaining the safety, quality and environmental conditions established and being responsible for the basic maintenance of the equipment in the area of work. This general competence is divided into the following **skills units** (UC):

- Carry out chemical process operations (UC0045\_2).
- Prepare and fine tune the machines, equipment and installations in the chemical plant (UC0046\_2).
- Carry out local control in the chemical plant (UC0047\_2).
- Act in accordance with correct manufacturing, safety and environmental standards (UC0048\_2).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Basic chemical process operations (MF0045\_2).
- Operations with machines, equipment and installations in the chemical plant (MF0046\_2).
- Local control in the chemical plant (MF0047\_2).
- Safety and the environment in the chemical plant (MF0048\_2).
- Practical training at the workplace in basic operations in a chemical plant (MP0053)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Prepare technical information relating to the start-up and shutdown of chemical processes and techniques for preparing mixtures, solutions, separations and basic or auxiliary process operations.
- Analyse the operation of the constructive elements and operations of the chemical process machines, as well as checking and recording data relating to the operational condition of the constructive elements of the equipment and machines used most often in the chemical processes.
- Observe the process of handling the control systems in a chemical process unit to guarantee the production and quality of the product.
- Check that the activities in the plant are carried out in accordance with safety, health and environmental regulations and procedures.
- Take part in the company's working processes, following the regulations and instructions established at the workplace.

## 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in the chemical sector, in the area of production or collaborating in research and development activities. The holder may work in the basic chemicals sectors (oil refining, petrochemicals, gases, inorganic chemicals, organic chemicals, fertilizers, fine chemicals, primary plastic materials, synthetic rubber, pigments and synthetic fibres); chemical processing (paints, veneers, lacquers, adhesives, printing inks, sensitive photographic material, essential oils and aromatic substances, glues and gels for the textile and leather industry, soaps, detergents, bleaches, explosives, wax and paraffins); and in other sectors in which basic chemical operations are carried out.

The most pertinent occupations and positions are:

- Chemical plant operator.
- Operator in an open chemical processing reactor.
- Oil and natural gas refinery operator, in general.
- Oil refining control panel operator.
- Operator of charcoal and/or coke production installations.
- Coal gas production plant operator.
- Chemical fertilizer manufacturing plant operator.
- Synthetic fibre production plant operator.
- Chemical whitening operator.
- Explosive manufacturing machine operator, in general.
- Phosphorus manufacturing machine operator.
- Chemical manufacturing operator.
- Chemical breaking, grinding and mixing machine operator.
- Chemical filtering and separation machine operator.
- Chemical distillation and reaction machine operator.
- Other chemical treatment facility operator.
- Other chemical manufacturing machine operator.

## 5. OFFICIAL BASIS OF THE CERTIFICATE

### Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

### Level of the certificate

The Professional Certificate Level 2 of the National Repertoire of Professional Certificates corresponds to level 3 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

### Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

### Access to next level of education/training

This Professional Certificate Level 2 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

## 5. OFFICIAL BASIS OF THE CERTIFICATE

### Legal basis

Royal Decree 1970/2008 of 28 November, establishing four professional certificates in the professional family Chemistry, which are included in the National Repertoire of Professional Certificates. (Appendix I, Code: QUIE0108)

Amended by Royal Decree 623/2013, of 2 August, establishing two professional certificates in the professional family Chemistry, which are included in the National Repertoire of Professional Certificates and actualization of the professional certificates in annex I, II, III y IV Royal Decree 1970/2008 of 28 November.

## 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	87	530
Practical training at the workplace	13	80
<b>Total duration of training leading to the certificate</b>		<b>610</b>

### Entry/access requirements:

- Compulsory Secondary Education Diploma (Lower secondary education); or
- Professional Certificate Level 1 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

**Additional information:** Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: [www.sepe.es](http://www.sepe.es)

National Europass Centre: [www.oapee.es](http://www.oapee.es)

(\*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

## Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

